

AMENDMENTS TO THE DRAWINGS

The attached drawing sheet includes changes to FIG. 4 and is labeled "Replacement Sheet". The Replacement Sheet is intended to replace the original sheet including FIG. 4.

A line and a reference number "117" referring to the line have been added to FIG. 4 to represent a stylette in the lumen 116. Support for the stylette can be found in paragraph [0105] of page eight of the application as published March 24, 2005. At the time the application was filed, the paragraph stated, "a closed-end lumen 116 may permit a stylette to run substantially the length of the lead, thus providing additional strength and rigidity to the lead." Thus, the addition of the line to FIG. 4 is supported by the specification as filed. No new matter has been added.

Attachments: Replacement Sheet

REMARKS

In the Office Action of July 21, 2005, the drawings were objected to for failing to show every claimed feature, claims 11-15 were rejected under 35 U.S.C. 112, second paragraph, for indefiniteness, claims 1, 3, 4, 11, 14 and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication US 2001/0021867 filed by Kordis et al. ("Kordis"), and claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kordis. Claims 16-20 were allowed and claims 5-10 and 12-13 were objected to for being dependant upon a rejected base claim, but were indicated to be allowable if rewritten into independent form to include all of the limitations of their respective base claims and any intervening claims. Applicants thank the Examiner for recognizing the allowable subject matter.

In response to the Office Action, Applicants have amended the drawings to overcome the drawing objections, canceled claims 2-5 and 12, and amended the claims to overcome the indefiniteness rejections. The remaining originally filed claims were either allowed in the Office Action (claims 16-20) or have been amended by Applicants to contain the allowable subject matter of claims 5-10 and 12-13 (claims 1, 6-11, and 13-15).

Applicants have added new claims 21-52. Applicants provide discussion distinguishing the new claims from Kordis. Also, Applicants cite locations within the application as filed that support the new claims. Applicants respectfully submit that the new claims contain no new matter and are allowable over the art of record.

Applicants respectfully submit that the application is now in allowable condition. A Notice of Allowance is respectfully requested.

Drawing Objections

In the Office Action, the drawings were objected to for failing to show the stylette recited in claim 13. As explained in the AMENDMENTS TO THE DRAWINGS section of this communication, Applicants have added to FIG. 4 a line and a reference number "117", which refers to the line. The line represents a stylette in the lumen 116. Support for the stylette can be found in paragraph [0105] of page eight of the application as published March 24, 2005. At the time the application was filed, the paragraph stated, "a closed-end lumen 116 may permit a stylette to run substantially the length of the lead, thus providing additional strength and rigidity to the lead." Thus, the addition of the line to FIG. 4 is supported by the specification as filed.

Applicants have also amended the specification to recite the "117" reference number and to refer to FIG. 4. As a result, the previously quoted application sentence now recites,

"a closed-end lumen 116 may permit a stylette 117 (see FIG. 4) to run substantially the length of the lead, thus providing additional strength and rigidity to the lead."

The aforementioned amendments to the specification and FIG. 4 do not add new matter. Reconsideration and withdrawal of the objection to the drawings is respectfully requested.

35 U.S.C. 112, ¶2 Rejections

In the Office Action, claims 11-15 were rejected under 35 U.S.C. 112, second paragraph, for indefiniteness. Applicants have amended claim 11 to replace the term "catheter" with the term "lead." Applicants have amended the preamble of claims 11, 14 and 15 to replace the term "lead" with the term "lead system." Claim 12 was canceled and it is now consistent for claim 13 to be recited simply as a "lead."

The claim amendments are supported by the application as filed and contain no new matter. Reconsideration and withdrawal of the indefiniteness rejections are respectfully requested.

35 U.S.C. 102 and 103 Rejections

In the Office Action, claims 1, 3, 4, 11, 14 and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Kordis, and claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kordis. Reconsideration and withdrawal of the anticipation and obviousness rejections are respectfully requested for the following reasons.

Claim 5 was indicated in the Office Action to be allowable if rewritten into independent form to include all of the limitations of its base claim and any intervening claims. Claim 5 depended from claims 1 and 4. Applicants have amended claim 1 to incorporate all of the subject matter of claims 1, 4 and 5. Therefore, Applicants respectfully submit that claim 1 is now in allowable form. Claim 6 is now depends from claim 1.

Claim 7 was indicated in the Office Action to be allowable if rewritten into independent form to include all of the limitations of its base claim and any intervening claims. Claim 7 depended from claims 1 and 4. Applicants have amended claim 7 to incorporate all of the subject matter of claims 1, 4 and 7. Therefore, Applicants respectfully submit that claim 7 is now in allowable form. Claims 8-10 depend from claim 7.

Claim 12 was indicated in the Office Action to be allowable if rewritten into independent form to include all of the limitations of its base claim and any intervening claims. Claim 12 depended from claim 11. Applicants have amended claim 11 to incorporate all of the subject matter of claims 11 and 12. Therefore, Applicants respectfully submit that claim 11 is now in allowable form. Claims 14 and 15 depend from claim 11.

Claim 13 was indicated in the Office Action to be allowable if rewritten into independent form to include all of the limitations of its base claim and any intervening claims. Claim 13 depended from claim 11. Applicants have amended claim 13 to incorporate all of the subject matter of claims 11 and 13. Therefore, Applicants respectfully submit that claim 13 is now in allowable form.

Claims 2-5 and 12 have been canceled. In the Office Action, claims 16-20 were indicated to be allowed. Applicants respectfully request a Notice of Allowance for claims 1, 6-11 and 13-20.

New Claims

New independent claim 21 and its dependent claims 22-24 are directed to “[a] tubular body for a catheter or lead, the body comprising a longitudinally extending proximal fragmentary trace in electrical communication with a longitudinally extending distal fragmentary trace.” These new claims are supported by FIG. 4 and paragraph [0069] of the application as published. These claims contain no new matter.

Kordis employs “signal wires 38.” *see, Kordis, FIGS. 31-35 & ¶¶[0164]-[0167]*. Kordis does not disclose, teach or suggest traces, much less the “fragmentary traces” recited in independent claim 21. Applicants respectfully submit that claims 21-24 are allowable over the art of record.

New independent claim 25 and its dependent claims 26-30 are directed to “[a] catheter or lead comprising a tubular body portion and a conductive element co-extruded with the tubular body portion.” Support for these new claims may be found at several locations within the specification, including paragraphs [0058] and [0099] of the application as published.

Kordis does not disclose, teach or suggest co-extruding a conductive element with a tubular body portion, as recited in independent claim 25. Applicants respectfully submit that claims 25-30 are allowable over the art of record.

New independent claim 31 and its dependent claims 32-33 are directed to “[a] tubular body for a catheter or lead, the body comprising a longitudinally extending electrically nonconductive portion and a conductive element formed on the nonconductive portion via an electrodepositioning or sputtering process.” Support for these new claims may be found at several locations within the specification, including paragraph [0113] of the application as published.

Kordis does not disclose, teach or suggest the electrodepositioning or sputtering recited in independent claim 31. Applicants respectfully submit that claims 31-33 are allowable over the art of record.

New independent claim 34 and its dependent claim 35 are directed to “[a] catheter or lead comprising: a tubular body portion comprising first and second concentric polymer layers; a conductive element longitudinally extending between the concentric layers; and a heat generated bond between the concentric layers.” Support for these new claims may be found at several locations within the specification, including paragraph [0142] of the application as published.

Kordis does not disclose, teach or suggest the heat generated bond recited in independent claim 34. Applicants respectfully submit that claims 34-35 are allowable over the art of record.

New independent claim 36 and its dependent claim 37 are directed to “[a] catheter or lead comprising: a tubular body portion comprising first and second concentric polymer layers; a conductive element longitudinally extending between the concentric layers; and a sonic generated bond between the concentric layers.” Support for these new claims may be found at several locations within the specification, including paragraph [0142] of the application as published.

Kordis does not disclose, teach or suggest the sonic generated bond recited in independent claim 36. Applicants respectfully submit that claims 36-37 are allowable over the art of record.

New independent claim 38 and its dependent claim 39 are directed to “[a] catheter or lead comprising: a tubular body portion comprising first and second concentric polymer layers; a conductive element longitudinally extending between the concentric layers; and a pressure generated bond between the concentric layers.” Support for these new claims may be found at several locations within the specification, including paragraph [0142] of the application as published.

Kordis does not disclose, teach or suggest the pressure generated bond recited in independent claim 38. Applicants respectfully submit that claims 38-39 are allowable over the art of record.

New independent claim 40 and its dependent claims 41-43 are directed to “[a] method of manufacturing a tubular body for a catheter or lead, the method comprising providing a tubular polymer portion and forming a longitudinally extending trace on the polymer portion.” Support for these new claims may be found at several locations within the specification, including paragraph [0142] of the application as published.

Kordis deploys wires about its polymer tubular layers. Kordis does not disclose, teach or suggest forming a trace, as recited in independent claim 40. Applicants respectfully submit that claims 41-43 are allowable over the art of record.

New independent claim 44 is directed to “[a] method of manufacturing a tubular body for a catheter or lead, the method comprising providing a tubular polymer portion, longitudinally extending a conductive element along an outer surface of the tubular polymer portion, and extruding an outer polymer layer over the tubular polymer portion.” Support for this new claim may be found at several locations within the specification, including paragraph [0118] of the application as published.

Kordis does not disclose, teach or suggest extruding an outer polymer layer over a tubular polymer portion, as recited in independent claim 44. Applicants respectfully submit that claim 43 is allowable over the art of record.

New independent claim 45 and its dependent claims 46-48 are directed to “[a] catheter for use in a medical procedure, comprising: a catheter body comprising at least one polymeric layer; a catheter tip operably connected to the catheter body; at least one electrically conductive element integrally formed with the at least one polymeric layer; and at least one energy delivery element operably connected to the at least one electrically conductive element.” Support for these new claims may be found at several locations within the specification, including originally filed claim 1 and paragraph [0046] of the application as published.

The wires for Kordis are simply sandwiched between polymeric layers and then the jacket is glued via an “adhesive 142” to the inner layers. *see, Kordis FIGS. 6 & 31-38; ¶¶[0164]-[0178]*. Kordis does not disclose, teach or suggest that its wires are integrally formed with a polymeric layer of the catheter body, as recited in independent claim 45. Applicants respectfully submit that claims 45-48 are allowable over the art of record.

New independent claim 49 and its dependent claims 50-52 are directed to “[a] lead for eliciting an electrical response from tissue, comprising: a lead body comprising at least one polymeric layer; a lead tip operably connected to the lead body; a first electrically conductive element integrally formed with the at least one polymeric layer; a first energy delivery element operably connected to the first one electrically conductive element; a second electrically conductive element integrally formed with the catheter body; and a first electrical sensing element operably connected to the second electrically conductive element.” Support for these new claims may be found at several locations within the specification, including originally filed claim 11 and paragraph [0046] of the application as published.

The wires for Kordis are simply sandwiched between polymeric layers and then the jacket is glued via an “adhesive 142” to the inner layers. *see, Kordis FIGS. 6 & 31-38; ¶¶[0164]-[0178]*. Kordis does not disclose, teach or suggest that its wires are integrally

formed with a polymeric layer of the catheter body, as recited in independent claim 49.
Applicants respectfully submit that claims 49-52 are allowable over the art of record.

CONCLUSION

This Amendment is submitted contemporaneously with a petition for a one-month extension of time in accordance with 37 CFR § 1.136(a). Accordingly, a check in the amount of \$3,870.00 (\$120.00 for one-month extension of time fee and \$3,750.00 for excess claims fee) is enclosed. The Applicant believes no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 accordingly.

If the Examiner should require any additional information or amendment, please contact the undersigned at (303) 629-3423.

Dated: 11-21-05.

Respectfully submitted,



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